Financial Resources in Support of Doctoral Recipients

Nearly one-third (32.2 percent) of 1998 doctorate recipients reported that their "own resources" was the primary source of financial support for their doctoral programs. These resources include loans; personal savings; non-academic personal earnings during graduate school; and earnings or savings from spouse, significant other, or family. More than half (60.6 percent) reported their primary financial support as a program- or institution-based source: fellowship or dissertation grant (16.3 percent), teaching assistantship (17.8 percent), and research assistantship/traineeship (26.5 percent). Those reporting foreign government (2.5 percent), employer (3.1 percent), and other sources (1.6 percent) make up the remainder. (See figure 15.)

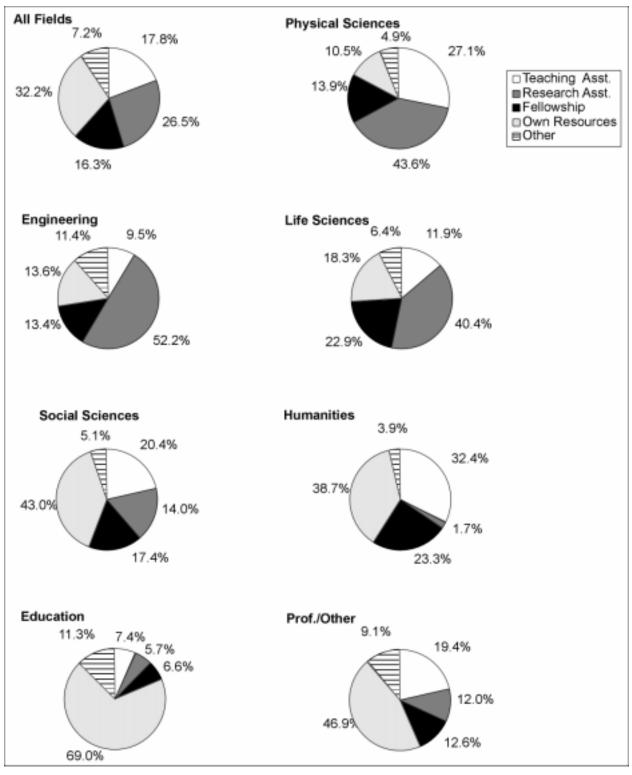
Overall, a higher percentage of women than men reported "own resources" as their primary financial source (41.1 percent versus 25.8 percent). U.S.-citizens (40.1 percent) were more likely than permanent residents (20.2 percent) or those on temporary visas (11.3 percent) to primarily rely on personal resources. Among the racial/ethnic groups (including whites) of U.S. citizens, the percentages citing personal resources as their primary support fell in a narrow band between 40 and 46 percent, except for Asians, for whom the percentage was 24.2 percent. However, the observed distributions are largely a function of field of study and underlying public policies, so comparisons at this level of aggregation must be further clarified.

For example, within the physical sciences only 10.4 percent of men and 10.7 percent of women listed their own funds as their primary source of support; both sexes had access to teaching and research assistantships and fellowships in almost identical proportions. By contrast, in the social sciences almost half of the female doctorate recipients (47.9 percent) and 37.3 percent of their male counterparts listed personal resources as the primary financial source; in the humanities the percentages were 38.9 percent females and 38.5 percent males. At 69.0 percent, education led all broad fields in students' own resources as the primary means of support.

International students are more heavily concentrated in fields where the majority of doctoral students traditionally receive institution- and/or program-based financial aid; consequently, it is not surprising that they rely less than do U.S. citizens on personal resources to support themselves in graduate school. However, within each of the seven broad fields, the percentage of U.S. citizens relying on their own financial resources exceeded that for their non-citizen counterparts, with permanent residents falling between in every instance. Three constraints influence the distribution of aid by citizenship status: (1) students on temporary visas are not eligible for many Federal or state sources of graduate assistance, such as USDA fellowships or traineeships from NIH and NSF; (2) international students, and in most cases their spouses, are not legally allowed to hold many forms of employment in the United States; and (3) non-U.S. citizens are excluded from most Federal loan programs.

These constraints are coupled with the requirement that approval of visa applications is assured only for international students who demonstrate full, guaranteed financial resources to

Figure 15. Primary sources of financial support for doctorate recipients, 1998



See Table 19

Source: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

complete their studies in this country. Because these individuals are not allowed to draw from traditional sources of support (see above), universities provide more teaching and research assistantships and fellowships to their international students. Consequently, non-U.S. citizens are more likely to receive teaching and research assistantships while U.S. citizens receive more fellowship and grant support.

In the year immediately prior to being awarded the Ph.D., 46.4 percent of the 1998 doctorate recipients held a fellowship or assistantship at their graduate institution; 12.4 percent were employed elsewhere part time; and 7.6 percent classified themselves as unemployed. About one-third (33.6 percent) were employed full-time during that year, divided in equal proportions across business/industry, college/university faculty or non-faculty, elementary or secondary school teaching/administration, and other (or unspecified) occupations.¹⁷

Borrowing as a source of financial support for doctoral students is discussed in the special section on indebtedness.

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 $^{^{\}rm 17}\,$ Calculated from responses to questions A4 and A5 in the Survey. See appendix D.